Serial No.: 10/002,900 Inventor: RAMACHANDRAN, et al. Docket No.: COM-002.7D Title: ONE PROTOCOL WEB ACCESS TO USAGE DATA IN A DATA STRUCTURE OF A USAGE BASED LICENSING SERVER

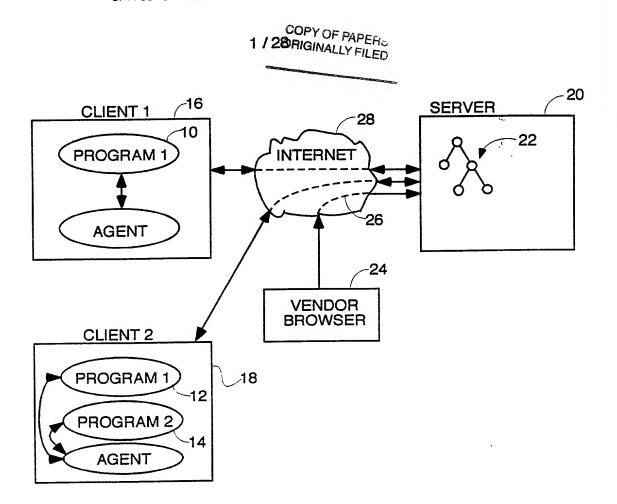


FIG. 1

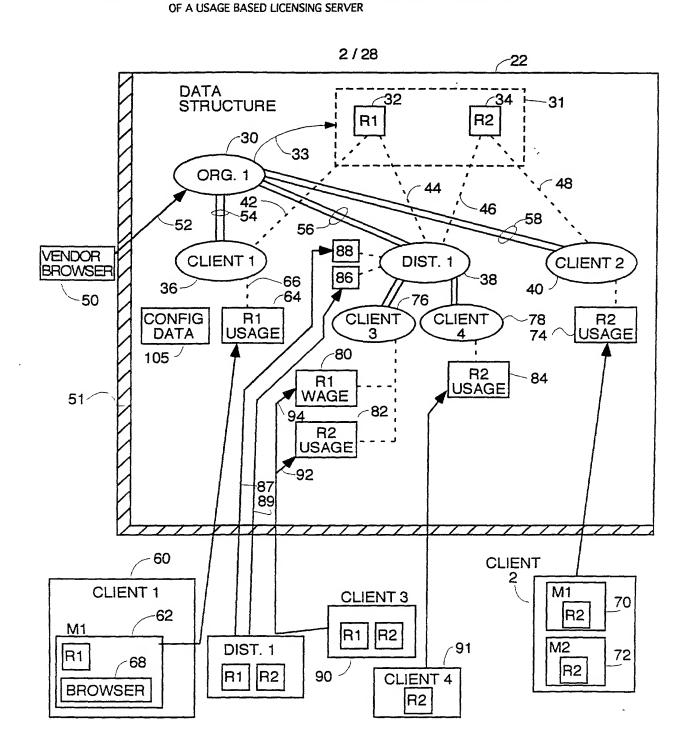


FIG. 2

Serial No.: 10/002,900 Inventor: RAMACHANDRAN, et al. Docket No.: COM-002.7D
Title: ONE PROTOCOL WEB ACCESS TO USAGE DATA IN A DATA STRUCTURE
OF A USAGE BASED LICENSING SERVER

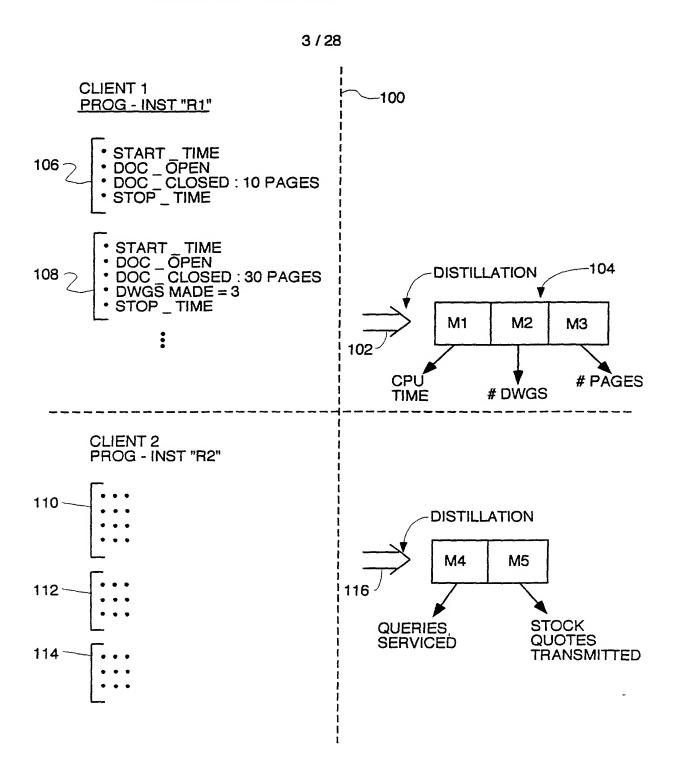
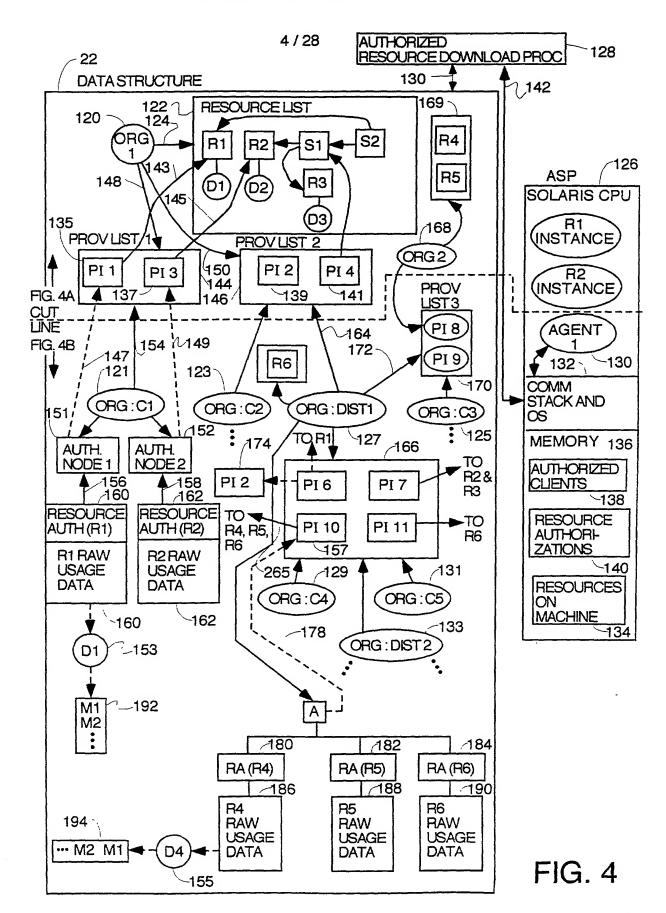
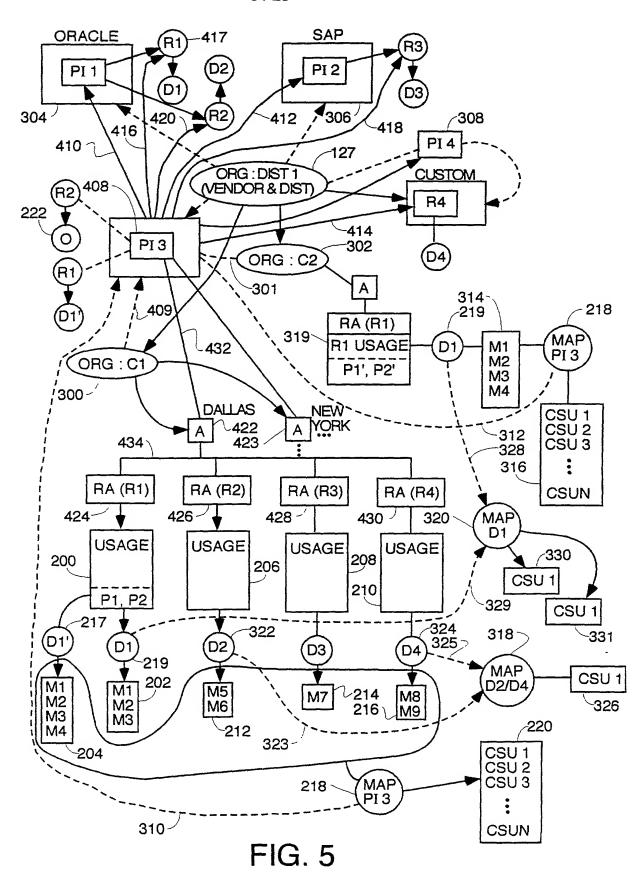


FIG. 3



5/28



OF A USAGE BASED LICENSING SERVER

6/28

## OVERALL PROCESS TO DISTILL RAW USAGE DATA TO METRIC DATA BY A PROGRAMMABLE MAPPING

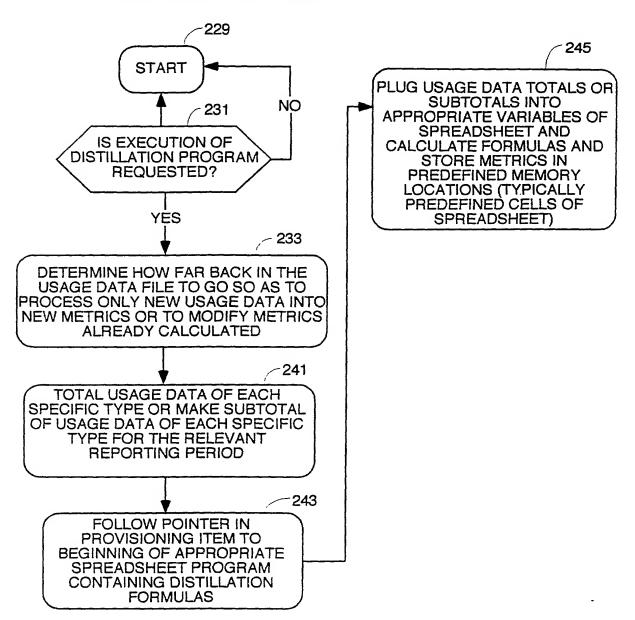


FIG. 6A

Title: ONE PROTOCOL WEB ACCESS TO USAGE DATA IN A DATA STRUCTURE

OF A USAGE BASED LICENSING SERVER

7/28

OVERALL PROCESS TO DISTILL RAW USAGE DATA TO METRIC DATA BY A PROGRAMMABLE MAPPING USING A PROGRAMMABLE DISTILLATION PGM

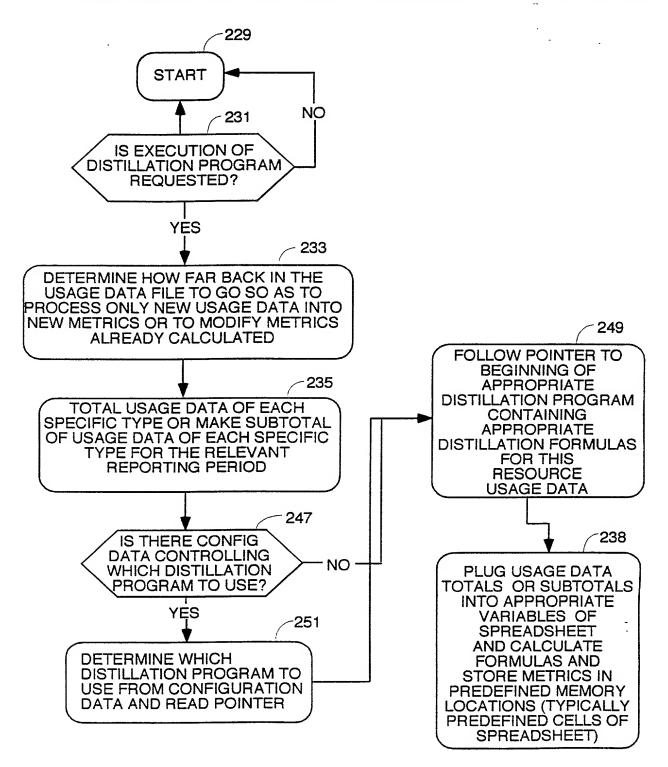


FIG. 6B

The Carry

Title:

OF A USAGE BASED LICENSING SERVER

8/28

PROCESS TO PROGRAMMABLY DISTILL RAW USAGE DATA TO METRICS AND PROGRAMMABLY DISTILL THE METRICS INTO CENTRAL SERVICE UNITS OF THE CUSTOMER'S DESIGN

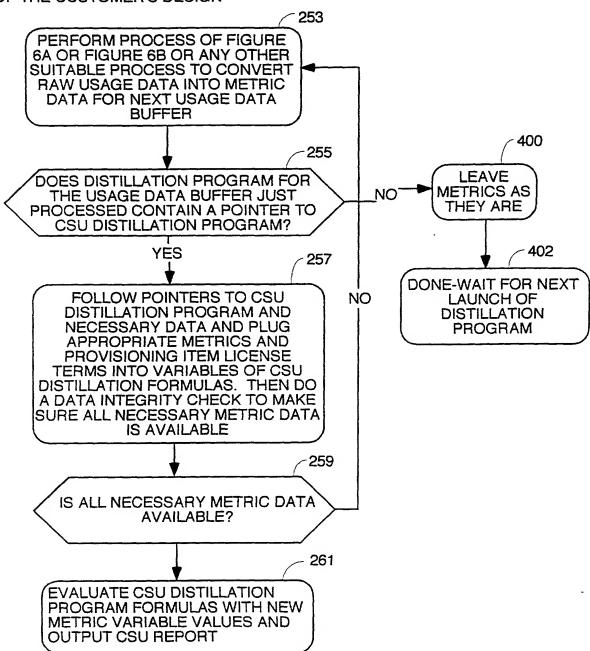


FIG. 7

Title: ONE PROTOCOL WEB ACCESS TO USAGE DATA IN A DATA STRUCTURE

OF A USAGE BASED LICENSING SERVER

## 9/28

OVERALL PROCESS TO COLLECT RAW USAGE DATA IN A CENTRAL SERVER AND USE IT TO PREPARE METRICS AND PREPARE INVOICES OR REPORTS THEREFROM

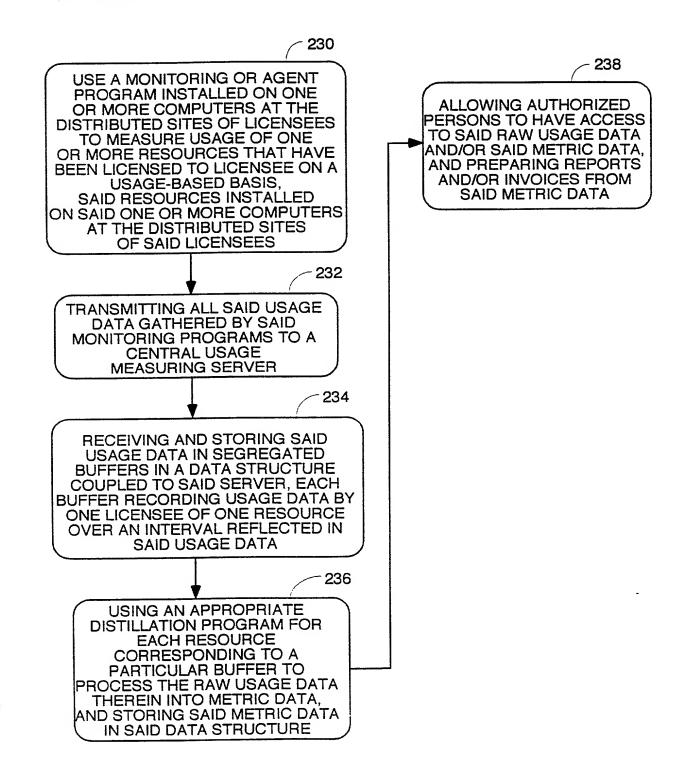


FIG. 8

Inventor: RAMACHANDRAN, et al. Docket No.: COM-002.7D Serial No.: 10/002,900 ONE PROTOCOL WEB ACCESS TO USAGE DATA IN A DATA STRUCTURE Title:

OF A USAGE BASED LICENSING SERVER

10/28

PROCESS TO BUILD USAGE MEASURING SERVER DATA STRUCTURE AND

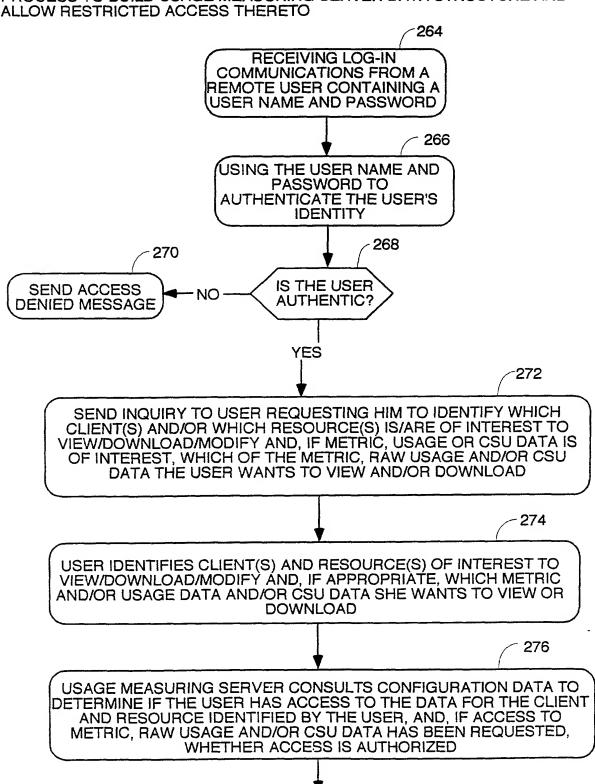


FIG. 9A

TO FIG. 9B

OF A USAGE BASED LICENSING SERVER

11/28

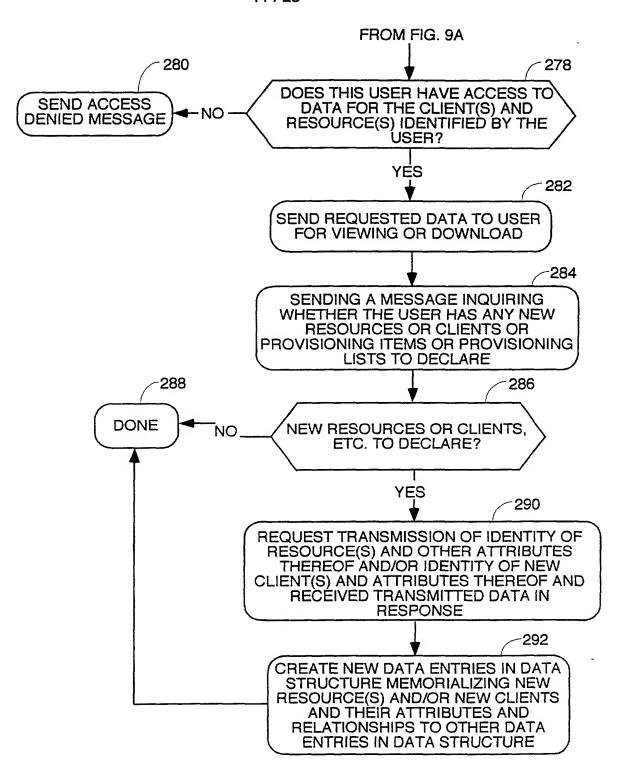
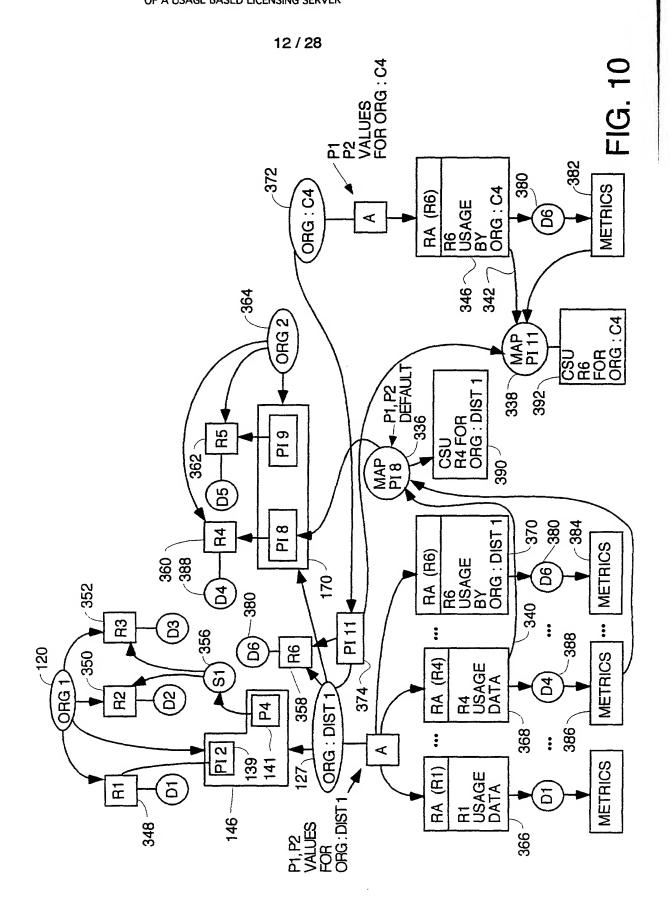


FIG. 9B

Serial No.: 10/002,900 Inventor: RAMACHANDRAN, et al. Docket No.: COM-002.7D Title: ONE PROTOCOL WEB ACCESS TO USAGE DATA IN A DATA STRUCTURE OF A USAGE BASED LICENSING SERVER



OF A USAGE BASED LICENSING SERVER

## 13 / 28

ALTERNATIVE PROCESS TO PROGRAMMABLY DISTILL RAW USAGE DATA TO METRICS AND PROGRAMMABLY DISTILL THE METRICS INTO CENTRAL SERVICE UNITS USING A CSU DISTILLATION PROGRAM LINKED TO PROVISIONING ITEM DETAILING LICENSE TERMS

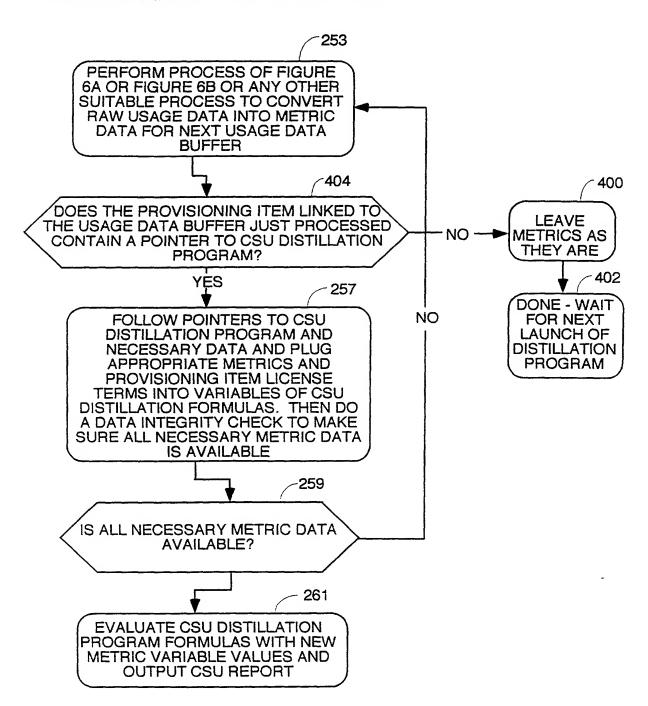


FIG. 11

Title:

OF A USAGE BASED LICENSING SERVER

## 14/28

ALTERNATIVE PROCESS TO PROGRAMMABLY DISTILL RAW USAGE DATA TO METRICS AND PROGRAMMABLY DISTILL THE METRICS INTO CENTRAL SERVICE UNITS USING A CSU DISTILLATION PROGRAM LINKED TO THE USAGE DATA BUFFER OF EACH CLIENT THAT WANTS CSU BASED REPORTS

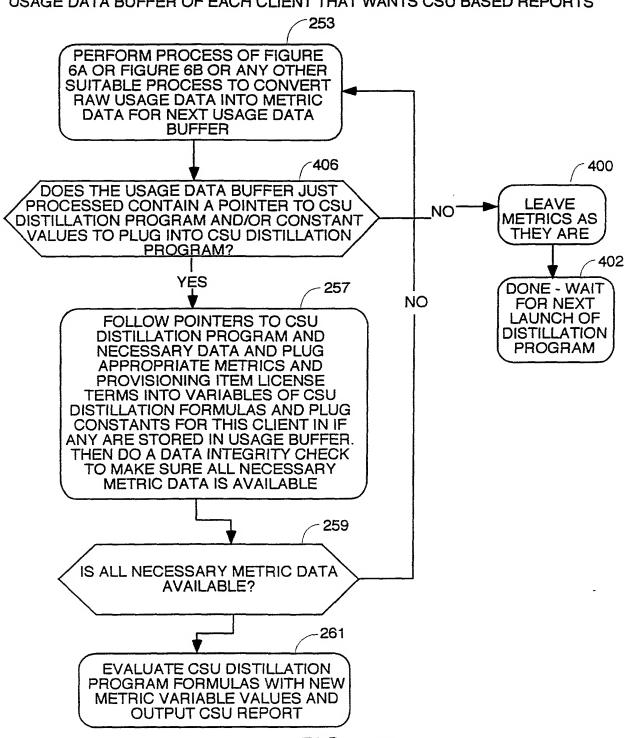


FIG. 12

Docket No.: COM-002.7D Serial No.: 10/002,900 Inventor: RAMACHANDRAN, et al.

ONE PROTOCOL WEB ACCESS TO USAGE DATA IN A DATA STRUCTURE Title:

OF A USAGE BASED LICENSING SERVER

15/28

PROCESS TO CREATE DATA STRUCTURE TO SUPPORT SUITE LICENSING AND TO USE THE DATA STRUCTURE TO IMPLEMENT SUITE LICENSING

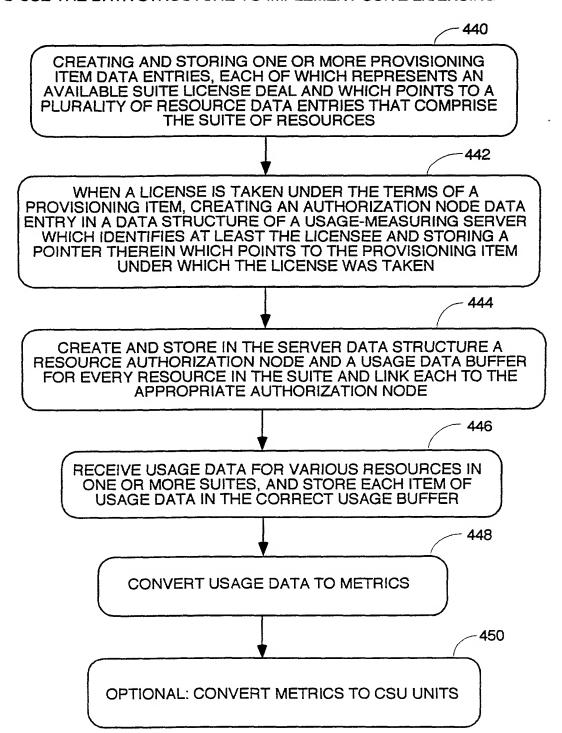


FIG. 13

OF A USAGE BASED LICENSING SERVER

16/28

ONE STOP SHOPPING PROCESS TO DETERMINE ALL AVAILABLE LICENSE DEALS ON A PARTICULAR RESOURCE

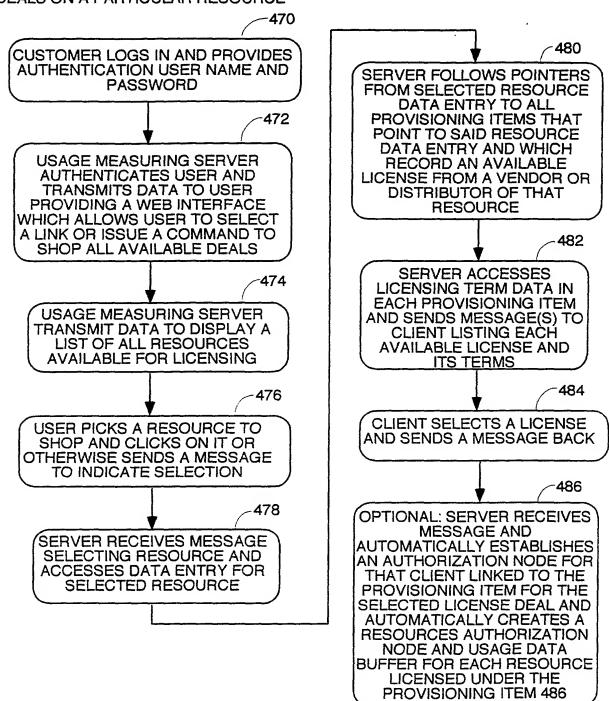


FIG. 14

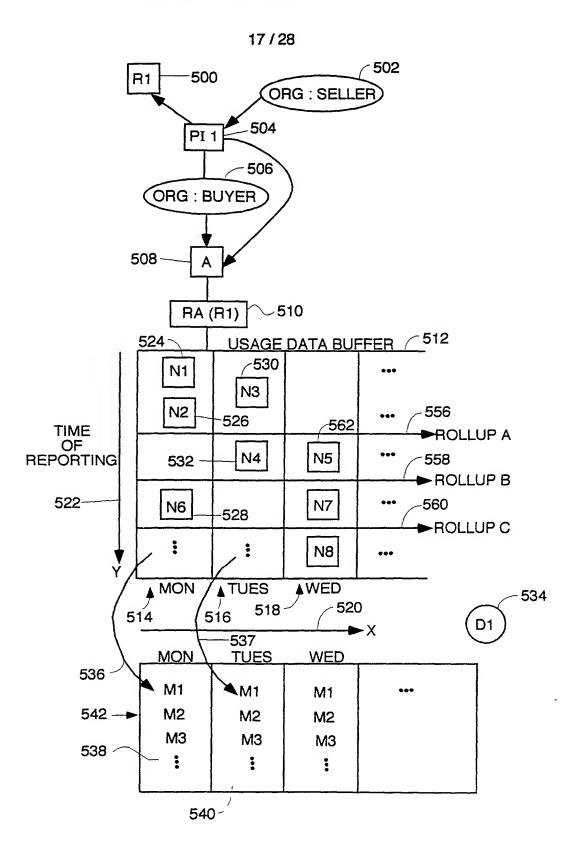


FIG. 15

Title:

OF A USAGE BASED LICENSING SERVER

18/28

PROCESS TO COLLECT USAGE DATA, PARTITION IT INTO TIME SEGMENTS AND GENERATE METRICS THEREFROM

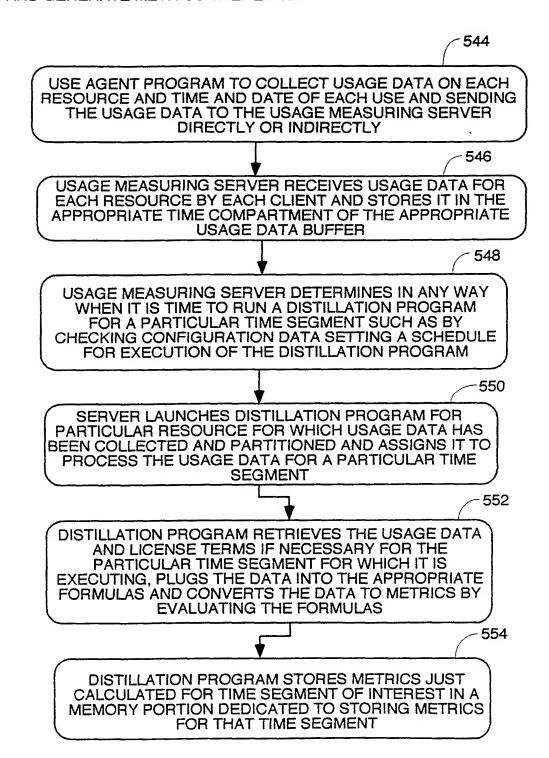


FIG. 16

ONE PROTOCOL WEB ACCESS TO USAGE DATA IN A DATA STRUCTURE

19/28

**ROLLUP A ID 39** 

	MON	TUES	WED	
M1= CPU	10	1	0	<b>_</b>
M2= DOCS	500	50	0	•••
M3= #PGS	759	71	0	•••
	:	:	:	

ALTERNATIVE ROLLUP B ID 40

MON	TUES	WED	
0	3	2	
0	70	40	
0	139	96	

FIG. 17

FIG. 18

PREFERRED ROLLUP B ID 50

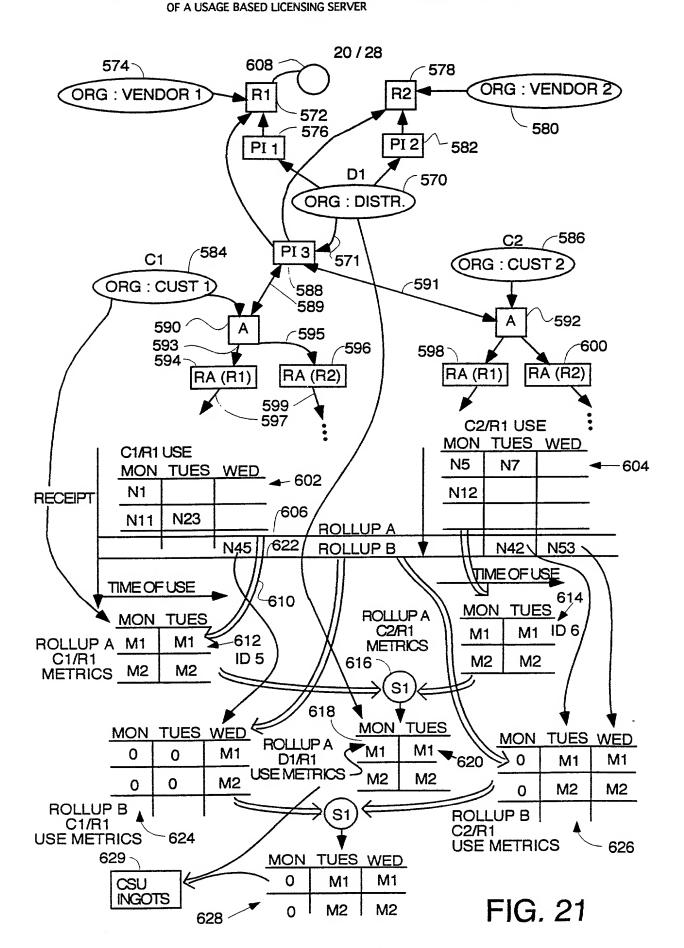
MON	TUES	WED	
10	4	2	
500	120	40	
759	210	96	

ALTERNATIVE ROLLUP B ID 40

MON	TUES	WED
0	4	2
0	120	40
0	210	96

FIG. 19

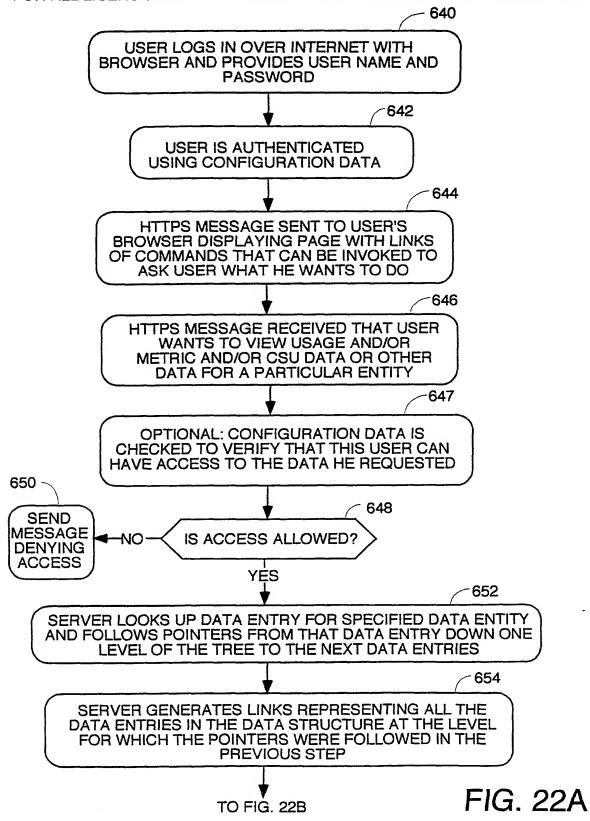
FIG. 20



Serial No.: 10/002,900 Inventor: RAMACHANDRAN, et al. Docket No.: COM-002.7D
Title: ONE PROTOCOL WEB ACCESS TO USAGE DATA IN A DATA STRUCTURE
OF A USAGE BASED LICENSING SERVER

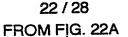
21/28

PROCESS FOR ONE PROTOCOL ACCESS TO USAGE/METRIC/CSU DATA FOR ALL LICENSEES OF A LICENSOR FROM A USAGE MEASURING SERVER



Docket No.: COM-002.7D Serial No.: 10/002,900 Inventor: RAMACHANDRAN, et al. ONE PROTOCOL WEB ACCESS TO USAGE DATA IN A DATA STRUCTURE Title:

OF A USAGE BASED LICENSING SERVER



656

SERVER SENDS THESE LINKS BACK IN HTTPS MESSAGE(S) WHICH CAUSE THE USER'S COMPUTER TO DISPLAY THE LINKS PREFERABLY WITH DESCRIPTIVE TEXT WHICH DESCRIBES WHAT EACH DATA ENTRY REPRESENTED BY A LINK IS

658

SERVER RECEIVES HTTPS MESSAGE(S) BACK FROM USER INDICATING WHICH LINKS USER SELECTED INDICATING WHICH DATA USER WISHES TO SEE

660

SERVER ACCESSES WHATEVER TYPE OF DATA USER SELECTED AND SENDS IT TO USER IN HTTPS MESSAGE(S) FOR DISPLAY ON **USER COMPUTER** 

662

THE SERVER SENDS AN HTTPS MESSAGE TO USER ASKING IF THE USER WANTS TO SEE MORE DATA BELOW THE LEVEL OF THE TREE JUST DISPLAYED

664

SERVER RECEIVES MESSAGE INDICATING USER WANTS TO SEE MORE DATA

666

SERVER FOLLOWS LINKS FROM DATA ENTRY OR ENTRIES JUST DISPLAYED DOWN ONE MORE LEVEL OF TREE AND GENERATES LINKS FOR THE DATA ENTRY OR ENTRIES SO FOUND

668

SERVER SENDS HTTPS MESSAGE TO USER CAUSING LINKS SO GENERATED TO BE DISPLAYED BY USER'S BROWSER, PREFERABLY ALONG WITH DESCRIPTIVE TEXT INDICATING WHAT DATA EACH LINK REPRESENTS

670

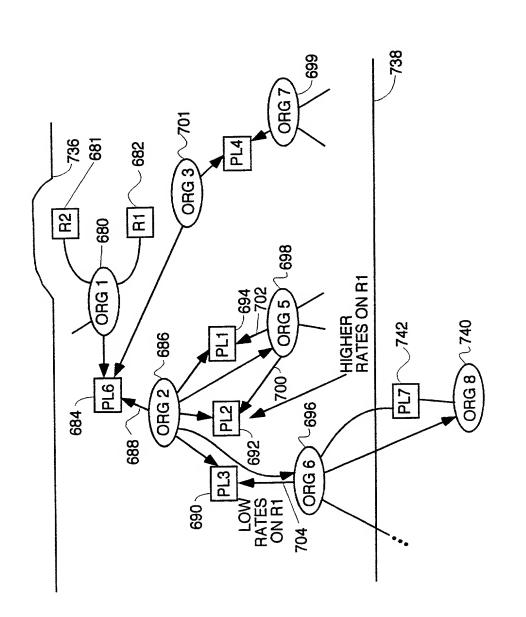
SERVER RECEIVES MESSAGE INDICATING WHICH DATA USER WANTS TO SEE, SENDS IT TO USER, INQUIRES WHETHER HE WANTS TO SEE MORE AND REPEATS PROCESS TILL ALL LEVELS OF TREE EXHAUSTED OR USER QUITS

FIG. 22B

0/002,900 Inventor: RAMACHANDRAN, et al. Docket No.: CC ONE PROTOCOL WEB ACCESS TO USAGE DATA IN A DATA STRUCTURE Docket No.: COM-002.7D Serial No.: 10/002,900

Title:

23 / 28



OF A USAGE BASED LICENSING SERVER

24/28 A PROCESS TO IMPLEMENT SECURITY BARRIERS TO PREVENT USERS FROM VIEWING DATA IN A USAGE MEASURING SERVER DATA STRUCTURE THAT THE USER NOT AUTHORIZED TO VIEW 706 RECEIVING A LOG IN **COMMUNICATION AND** AUTHENTICATING THE USER 710 708 SEND ACCESS USER DENIED AUTHENTICATED? MESSAGE AND QUIT YES 712 SEND INQUIRY MESSAGE TO USER REQUESTING USER TO IDENTIFY WHICH DATA IN USAGE MEASURING SERVER DATA STRUCTURE IS OF INTEREST 714 RECEIVING MESSAGE INDICATING WHICH DATA IS OF INTEREST 718 716 SEND ARE THERE LINKS IN THE DATA STRUCTURE **ACCESS** WHICH DIRECTLY OR INDIRECTLY COUPLE THE DENIED ⊢NO JSER'S DATA ENTRY TO THE REQUESTED DATA? MESSAGE AND QUIT 720 RETRIEVE THE REQUESTED DATA TO WHICH THE USER IS DIRECTLY OR INDIRECTLY LINKED AND SEND IT TO USER 722 SENDING A MESSAGE INQUIRING WHETHER USER WISHES TO MODIFY ANY OF THE

FIG. 24A

DATA JUST SENT

TO FIG. 24B

Title: ONE PROTOCOL WEB ACCESS TO USAGE OF A USAGE BASED LICENSING SERVER

ONE PROTOCOL WEB ACCESS TO USAGE DATA IN A DATA STRUCTURE

25 / 28

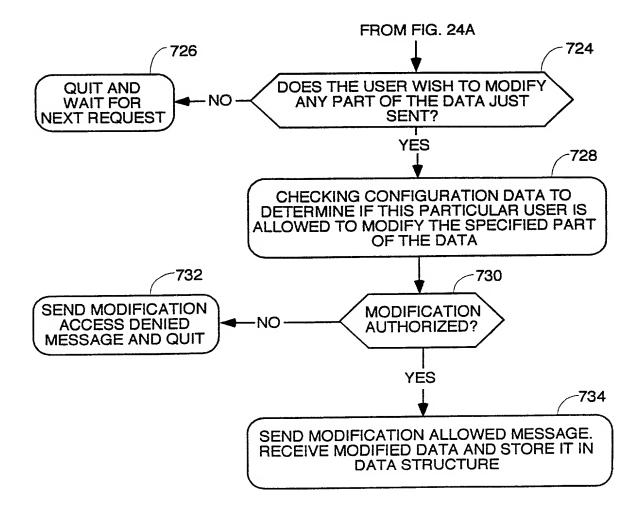
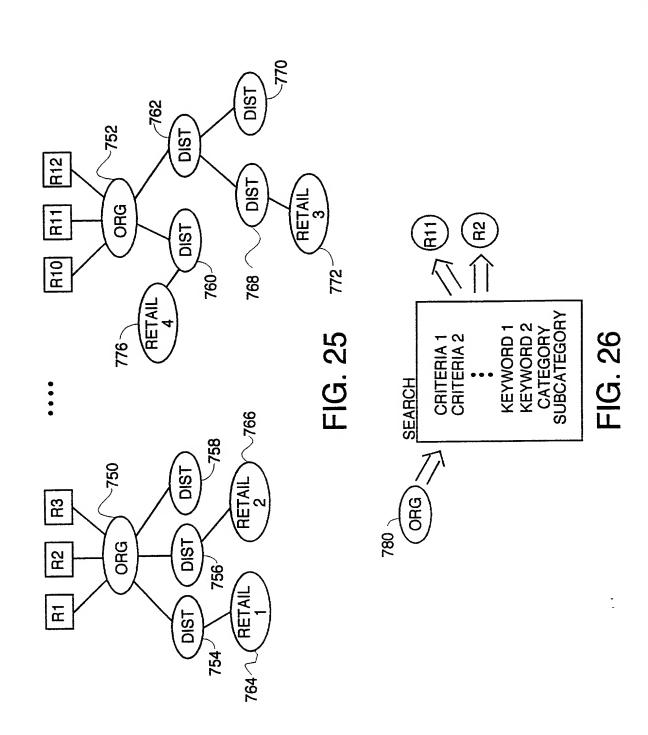


FIG. 24B

Title: ONE PROTOCOL WEB ACCESS TO USAGE DATA IN A DATA STRUCTURE

26 / 28



Title: ONE PROTOCOL WEB ACCESS TO USAGE DATA IN A DATA STRUCTURE

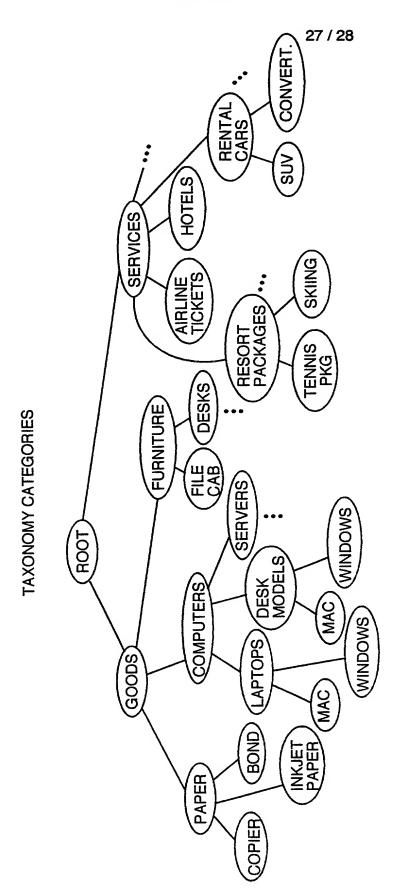


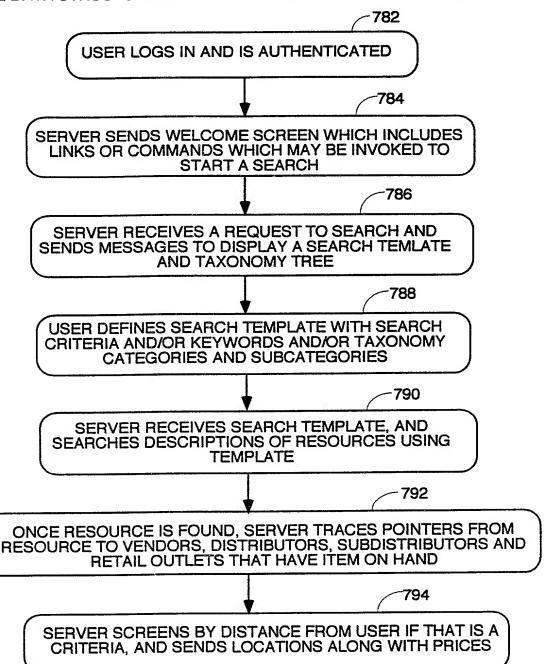
FIG. 27

ONE PROTOCOL WEB ACCESS TO USAGE DATA IN A DATA STRUCTURE

OF A USAGE BASED LICENSING SERVER

28 / 28

SERVER PROCESSINGTO IMPLEMENT ONE-STOP SHOPPING SEARCHING OF THE DATA STRUCTURE BASED UPON USER-DEFINED CRITERIA



**FIG.28**